

# **AL12R**

## **Self Contained P.A. Operating Manual**

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# SoundTech AL12R Contained P.A. System

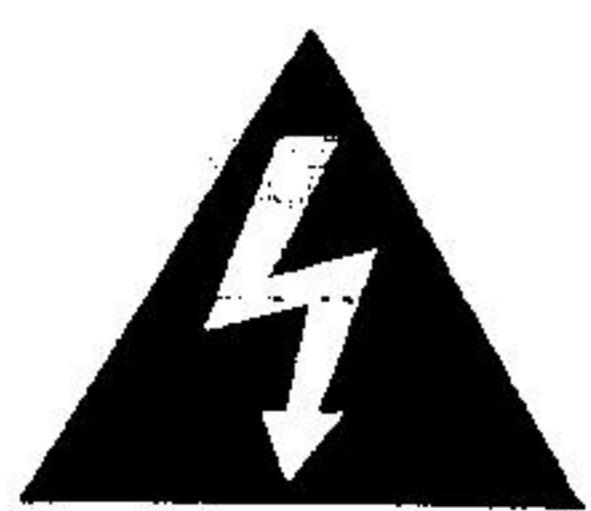
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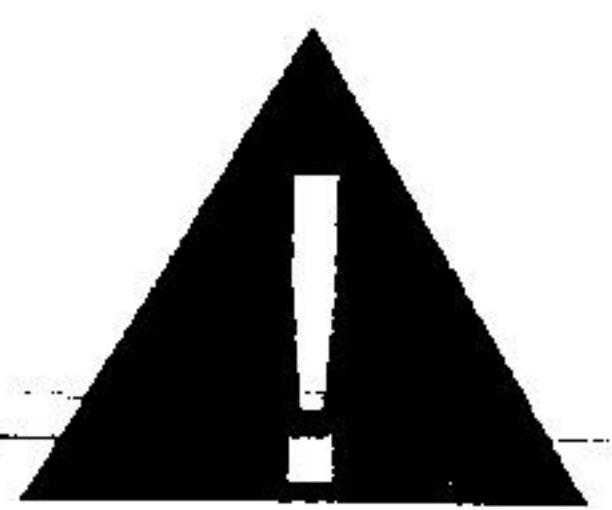
## IMPORTANT SAFEGUARDS

THESE WARNINGS APPLY TO ALL SOUNDTech ELECTRONIC PRODUCTS. PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS CONTAINED IN THIS SERVICE MANUAL AND THOSE ON YOUR SOUNDTech PRODUCT PRIOR TO ITS USE.

### WARNINGS AND SYMBOLS:



**LIGHTNING FLASH:** The lightning flash with an arrowhead within an equilateral triangle is intended to alert the user of the presence of uninsulated **DANGEROUS VOLTAGE** within the product's enclosure that may be of significant magnitude to constitute risk of electric shock to persons.



**EXCLAMATION POINT:** The exclamation point within an equilateral triangle is intended to alert the user of the presence of **IMPORTANT OPERATING AND MAINTENANCE OR SERVICE INSTRUCTIONS** in the literature accompanying the product.

### WARNING GRAPHIC ON PRODUCT:

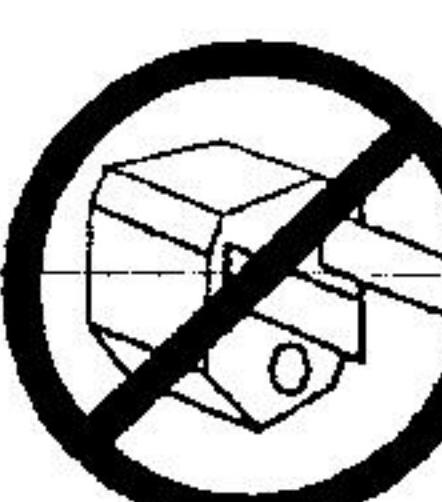
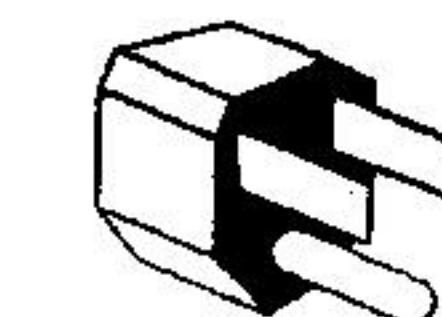


The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

### PRECAUTIONARY WARNING:



**RAIN AND MOISTURE:** To reduce the risk of fire or electric shock, **DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE**. Operators of electronic products should in no way be in contact with water.



**GROUNDING:** To prevent electric shock, **DO NOT DEFEAT THE THREE PRONG GROUNDING PLUG** on the product's power cord. Do not use an adapter, extension cord, or outlet unless the blades can be fully inserted to prevent blade exposure.

### WARNING GRAPHIC ON PRODUCT:

**CAUTION:** TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE TO RAIN OR MOISTURE.

## I Introduction

Congratulations! You have purchased a SoundTech AL12R self-contained P.A. system, designed to give you years of trouble-free use as a portable P.A. system or instrument amplifier. Before using this fine product, please take a moment to read this manual, which explains the features of this fine product, and informs you of the appropriate safety precautions.

The AL12R features a built-in mixer panel, which provides a convenient place to attach microphones, a CD player, Audio / Visual equipment and Instruments. On the AL12R, this mixer panel may be rotated to position the knobs and connectors on either the top or the back panels, depending on your

reference and usage. Graphic Equalization and Master Level functions are provided on the mixer panel.

The AL12R includes additional portability features: Corner-mounted casters, handle-foot, and extendible pull-handle, to make this compact unit very easy to transport. AL12R also includes a bottom-panel pole receptacle, for when you want to mount the unit on a speaker tripod stand or pole for better coverage. SoundTech wishes you many years of success with your AL12R.

## II Warranty Information

As a part of our system of quality control, every SoundTech product is carefully inspected for flawless operation and appearance before leaving the factory. If your equipment shows any signs of physical damage or fails to operate properly, notify your dealer immediately. If your SoundTech unit

was shipped directly to you, notify the shipping company immediately. The factory warranty does not cover transportation damage. SoundTech recommends that you retain the original carton and packing materials in case it becomes necessary to ship the product at a later date.

## SoundTech Limited 5 Year Warranty

All SoundTech products are built to exacting standards using the most modern manufacturing and assembly processes. Should an unforeseen problem occur, you can be assured that it will be corrected promptly and accurately either through your SoundTech dealer, an authorized SoundTech Service Center or through direct factory service. We are proud to stand behind our products with the following warranty: SoundTech electronic products are warranted to be free from defects in materials and workmanship under normal use for a period of five (5) years from the date of original retail

purchase. During that period, SoundTech will, at its option, repair or replace a defective product at no charge if the unit has been delivered to SoundTech or to an Authorized SoundTech Service Center together with the original sales receipt or other proof of purchase.

This warranty excludes the exterior finish, normal wear and tear and failure due to abuse or operation outside of specified ratings. This warranty applies to the original retail purchaser only and gives the end user specific legal rights which vary from state to state.

### SoundTech Customer Service Department

444 East Courtland Street  
Mundelein, IL 60060 USA (847) 949-0444

**For your own protection, fill out the information below and keep for your records.**

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Phone: \_\_\_\_\_

Dealer: \_\_\_\_\_

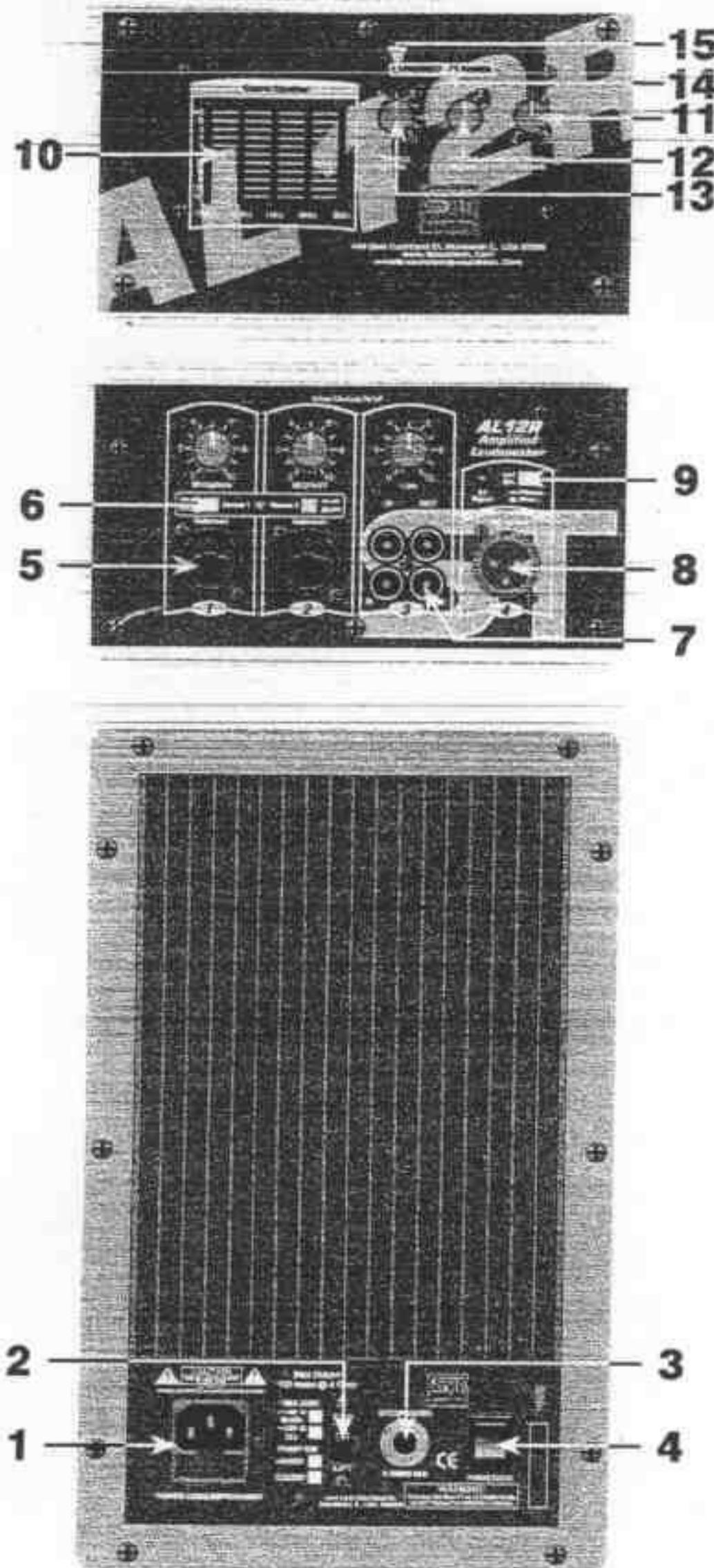
Salesman: \_\_\_\_\_

Other Information: \_\_\_\_\_

For warranty terms and repair information outside of the USA, please contact your dealer.

### III Panel Description

**Fig A.**



1. MAINS CONNECTOR: Connects the included power cable. The mains fuse is contained in the compartment incorporated into this connector.
2. GROUND LIFT SWITCH: Eliminates the hum noise from ground loop by using this switch.
3. EXTENTION SPEAKER JACK: Connects an external speaker with a minimum impedance of 8 ohm.
4. POWER SWITCH: Turns the unit on/off.
5. MICROPHONE INPUTS: Mic1 and Mic2 inputs accept either balanced low - Z microphone input signals on XLR connectors (Pin1 = shield , Pin2=hot and Pin3=cold) or high-Z unbalanced microphones (ch.1), or high-Z unbalanced instruments (ch.2).
6. REVERB: The AL12R features a built-in reverb unit. Each XLR input has an on/off switch between the input jack and level control. There is also a master reverb control and green LED above the line/aux level control. This increases or decreases the amount of reverb for the mic channels that have their reverb switch set to the on position.
7. LINE IN/PARALLEL OUT: Accepts line level signal from instruments or other sources.
8. MIXED OUT: Sends the master signal to a slave unit.
9. WIRED/WIRELESS SELECTOR: Chooses wired or wireless mode in channel 1, RF LED lights up when wireless mode is chosen. AL12R includes a built-in receiver which will work with STM-43H headset, STM-42L lavalier microphone, or STM-41W handheld wireless microphone. Both STM-43H and STM-42L include the STT-40 transmitter.  
NOTE: The wireless input is only operated through channel 1.
10. 5-BAND EQUALIZER :Note: the AL12R features the EQ on the back of the PivotMixer. This provides accurate control over the tone of the amplified output to the speaker. As with any graphic equalizer, the left-most sliders affect the bass frequencies, center slider(s) affect the midrange, and the right-most sliders affect the high frequencies. Each slider provides +/-15 dB boost or cut. NOTE: USE EQ MODERATELY. EXCESSIVE BOOST MAY CAUSE EXCESSIVE NOISE.
11. MASTER LEVEL CONTROL: Provides continuous level adjustment of the amplifier's output to the speaker. With an adequate input signal, this control typically must be turned no higher than "5" for full output. When the input signal is too low, extra gain may be applied using this control. When used at its extreme, a small amount of background hiss will be heard, due to the extra gain applied.
12. MASTER REVERB: Control the total reverb volume of the unit.
13. TAPE/CD LEVEL: Controls the volume of the built-in CD player.
14. POWER LED: Lights up when the unit is turned on.
15. PROTECTION LED: Lights up when the system is in protection mode (DC/Short/Overheat).

### **III Panel Description**

#### **16. BUILT-IN CD PLAYER**

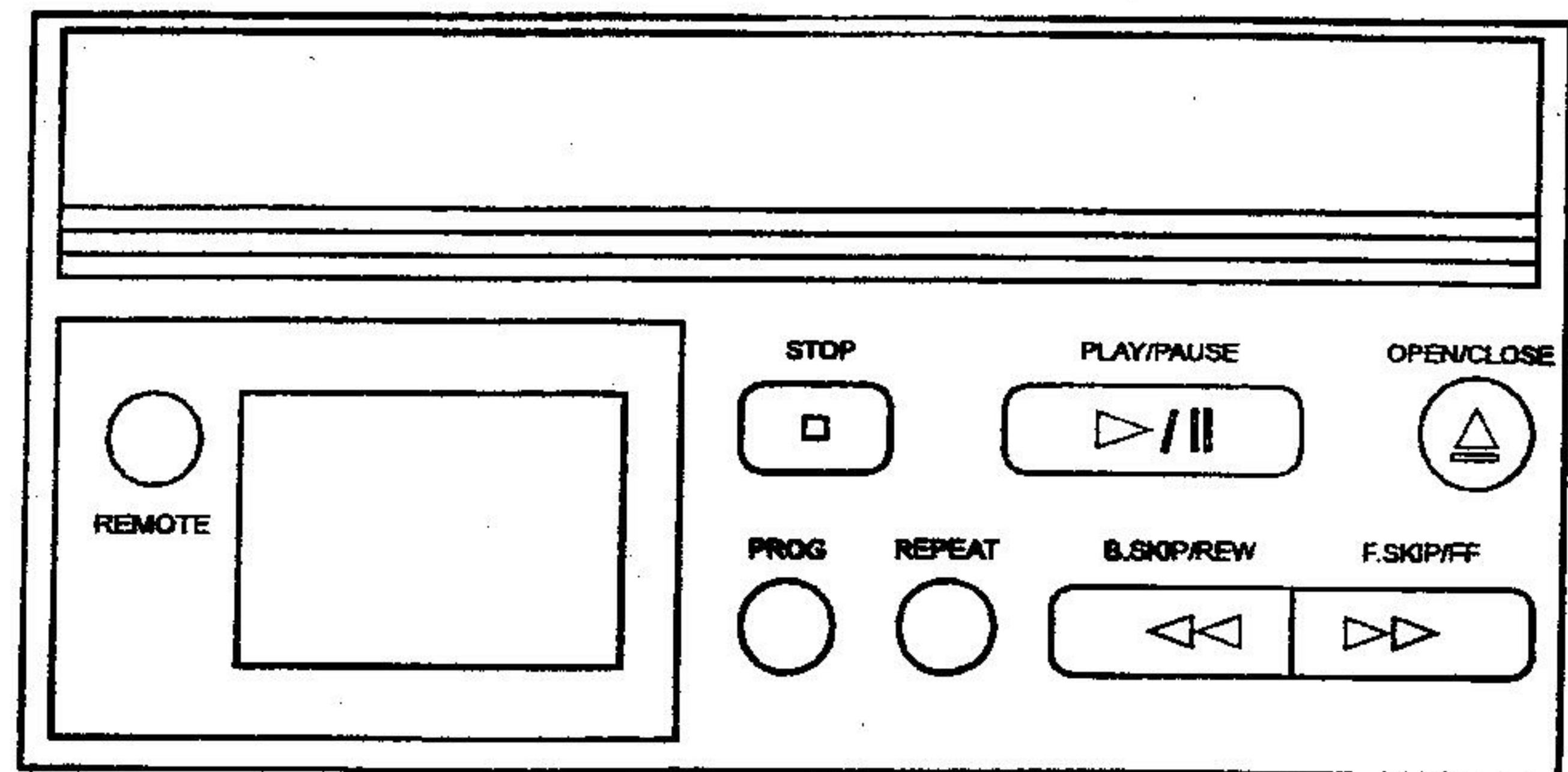
**17. PIVOTMIX™ REVERSIBLE MIXER:** This unique feature allows the mixer to be oriented such that the controls are either on the top panel, or the rear panel. The AL12R is shipped from the factory with the mixer controls on the top panel. If you routinely use your AL12R mounted on a pole, or want the knobs to be not visible from the front, then follow these steps to reverse the mixer: 1) Remove the 8 screws securing the PivotMixer to the AL12R 2) Rotate the mixer to the desired orientation, taking care not to stretch the attached wiring harness, 3) Re-install the mixer, using the 8 screws. NOTE: If you wish, your SoundTech dealer will perform this simple operation for you.

**18. POLE MOUNT RECEPTACLE:** The AL12R may be mounted to any 35mm speaker mounting pole or tripod stand, such as the SoundTech S75 heavy duty aluminum speaker stand.

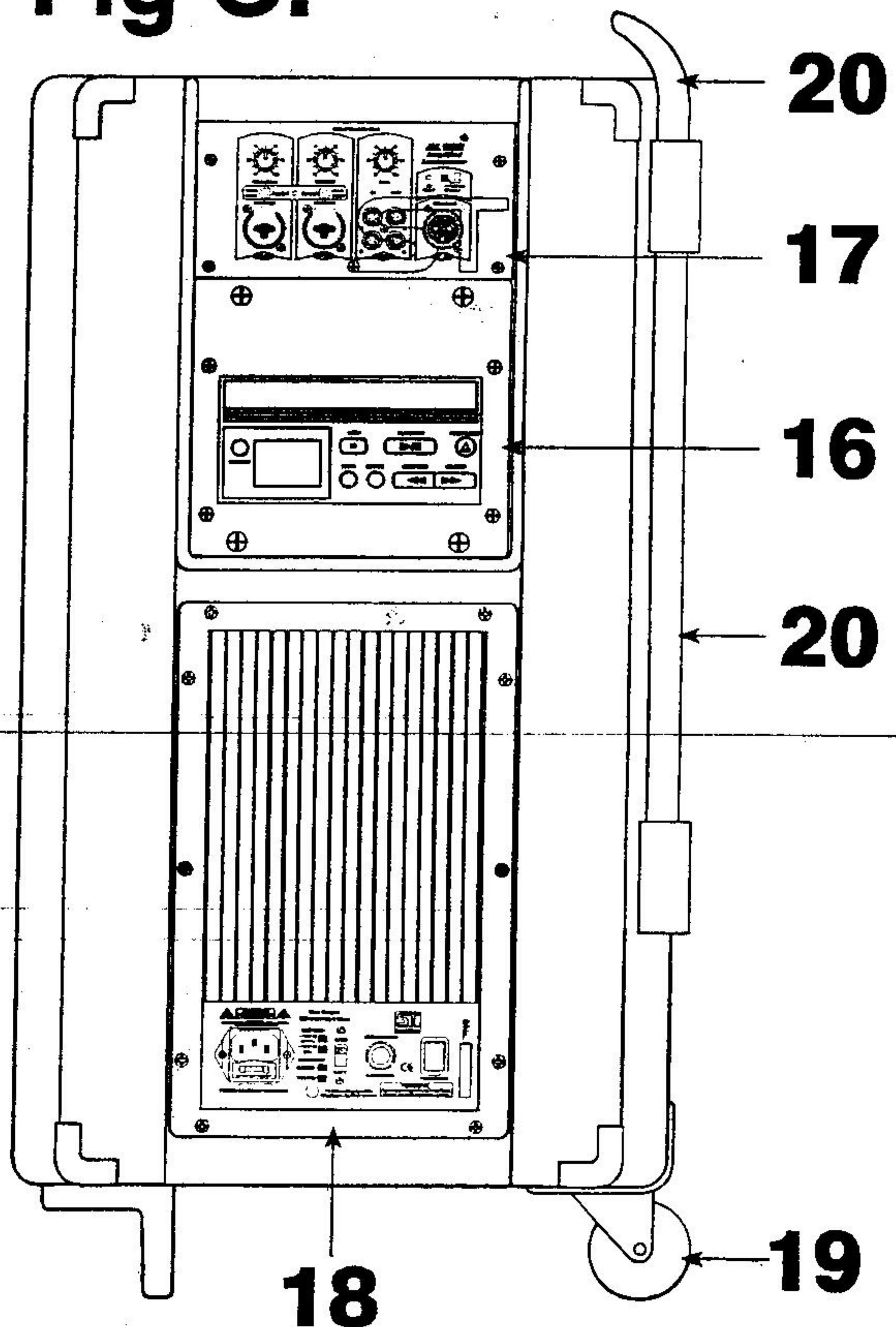
**19. CORNER CASTERS:** With normal use and standard precautions, these sturdy roller-bearing casters will give years of trouble-free operation. Take care to keep them free from excessive dirt and standing water. Take care to lift the AL12R over major obstacles, and never drop the AL12R on its casters.

**20. EXTENDABLE HANDLE:** This sturdy aluminum handle was designed to pull the weight of the AL12R safely and without damage. DO NOT overload the handle with other heavy items such as briefcases or other equipment. Take care to lower the handle when not in use, to avoid accidental damage.

**Fig B.**



**Fig C.**



# IV AL12R Self Contained P.A. System

	AL12R
Nominal input level:	Full Range
Mic 1 (XLR):	Powered
Mic 2 (XLR):	2-way 12"
Line (RCA):	
Graphic Equalizer:	
Range:	-40 dBm
Centers:	-40 dBm
Power Amplifier:	-20 dBm
Power @ 8 Ω:	
Power @ 4 Ω:	±15 dB
Distortion (@100W):	110 W FTC
Signal-to-Noise Ratio:	150 W FTC
Frequency Response:	<0.05%
Speaker Impedance:	>90 dB
Sensitivity (1W / 1m):	40-20k Hz
Dimensions Inches(mm):	8 Ohms
height (less handle):	94 dB
width:	24.8 (629)
depth:	15.9 (404)
Net Weight 1bs.(kg):	13.4 (340)
Componentry:	50.4 (22.9)
Woofer:	STS115-85M
Tweeter:	KP-306
Mixer Module:	Pivot Mixer EQ
Amp / EQ Module:	MC220
Pole Mount:	35mmSMB
Fuse Rating:	F5A/T2.5A
Receiver:	RF module
Carrier Frequency:	160-240MHz VHF High Band
THD:	(1 KHz, 10KHz DEV, 1mV)<0.5%
Muting Sensitivity:	10 uV (S/N=30dB, THD=30%)
S / N radio at 1mV input:	60dB
Power Equipment:	DC 12V
Transmitter:	(wireless microphone)
RF output level:	within 10 mW
Radio Style:	F3E +/- 15K
Sensitivity:	100dB SPL at 7KHz fm deviation
Frequency response:	100Hz - 12 KHz - depending on microphone.
Power equipment:	UM-3, 1.5V* 2
Current consumption:	70mA
Battery life:	15 - 20 hours (1300 MAH)



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